NEW ENGLAND FARMER.

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AGRICULTURE.

FOR THE NEW ENGLAND FARMER.

HORSES.

SIR—In my first communication, for "relaxations of luxury," read "emulations, &c." a very different thing; in the ninth paragraph, as it is printed, for "last observation," read "last observation in the last sentence;" for "different," read "unnatural;" for "caries of the bones;—which are," read "caries of the bones of the foot: which appear to be;" there should have been no dashes; in my second communication, for "a superior bone," read "a superior horse;" for "more than any other horse, read "more than at any other age." I will now make a few remarks upon the treatment of a horse kept for his work.

1. As to whether he should ever be turned out. It was once the received opinion of English sportsmen, that he should be periodically brought back to what some people considered his natural state, turned out to grass, deprived of his corn and his shelter from the weather. Hunters, consequently, excepting those of a few sagacious individuals, were regularly turned to grass to shift for themselves in the summer. This system has been, of late years, attacked by a very powerful and classical writer, who asserts, that as to perform the work of an English hunter, the horse's strength must be vastly increased upon nature by a long uninterrupted course of high keep in the stable, to turn him out, is not only to expose him to ruin from taking cold, but to throw away all his acquired strength. The continued summer rest of a hunter, which a horse not exposed to the same exertions does not require, he says, can be taken in a small inclosure at home, the dampness of the earth can be supplied by standing in wet clay, some hours every day, and the grass, if he must have it, can be put into his crib. The ultra stabulist has completely triumphed, and convinced the English nation, that where a horse is kept ten months of the year in a heated atmosphere, to sleep upon the dam ground, in a variable climate, the remaining two, can do him no good whatever. In our cities, when a horse gets weak or lame, who is used to a hot, dry stable, perhaps to being clothed, with a plethorick system begging for diseases of the lungs and throat, incalculably less accustomed to the night air than the generality of men, he is sent into the country to be turned out; particularly in the autumn, when the weather first changes to cold, and he is changing his coat! If any person will go into a large livery stable in Boston in May, before the windows are taken out for the summer, when the doors are opened at daybreak, he will find, that though he cannot remain an instant in it himself, the horses have been quietly sleeping, sometimes two in a stall, their own breath and effluvia chiefly confined to their contracted stalls, their nostrils the farthest possible from the air, that they are most of them in good health, and some in high condition. After the efforts nature must have made to bear this, will she instantly retrace her steps? That she will, is defended and acted upon by persons who think they understand horse-flesh. To such persons, I would quote, if I had the book, the words of Vegetius, who wrote in the reign of Valentinian, when the whole world was interested in horse-flesh, and who calls turning horses out at all seasons a Hunnish practice. He wrote for the climates of Syria and Spain. The benefit to a horse of regular work and nourishing food increases his powers for years in succession. He appears to grow thicker. A particular kind of horse, who, to use such an expression, carries his work in his legs and his carcass, and not in any original goodness of his own, a stage-coach proprietor must frequently notice this fact in; and he is the most valuable horse he can get. I mean a horse, naturally of moderate powers of performance for a single day, but who has a deep carcass, with an insensible foot and consequently has open to him a chance of receiving the highest degree of improvement to be derived from a succession of years of strong food and strong exercise.

2. As to how he should be confined in the stable. The universal practice in Massachusetts, as in most other places, is to tie him in a narrow stall with his fore feet higher than his hind ones. In some stables the declivity is very considerable. It is my opinion, that if there must be a declivity, it should be forwards. A horse worked every day on a fast trot over a hard road, as a coach horse, suffers enough in his fore feet when he is sound. One of the first signs of incipient disease in them, or rather of the crowded state which precedes disease, is his throwing his weight as much as he can on his hind legs. I am inclined to doubt the fact of his preferring to stand up hill under such circumstances. One reason for such an opinion is the manner in which his weight is thrown on his toes when he stands up hill, even if his heels are raised. Another great disadvantage of his standing so is that he throws the whole weight of his forehand upon the same muscles and tendons he uses most in draught. It is certainly of importance, that if he must have an unnatural strain any where when he is not at work, it should not be where the strain must be where he is. It is a vast comfort to a horse to be kept in a box. He should be able to choose his own position, at least to sleep in, and relieve what muscles he wishes to. In a stall, he must sleep, through life, with his head held in the air and his legs under his body. His getting cast in a box is not a common occurrence. Ten feet square will do well; if he cannot have a larger one. In a box he is freed from the torment of hearing walking and talking behind him.

3. As to how he should be fed. I have never yet met with a person having the charge of horses, who in my opinion attached sufficient importance to the impropriety of allowing a horse his usual allowance of corn when suffering from cold. Not only is the corn thrown away, but it must always do him some harm, and may do him a great deal. Many horses that suffer from a thickening of the windpipe, a disease for which we have here no name, many that are broken-winded, many that are ruined in their feet, may have it ascribed to being fed on severe colds. The corn increases the disorder of the system by the difficulty with which it is digested, and when digested, it exaggerates what tendency may exist to local inflamation. Oats are the least dangerous corn, they being here so very light. There is another remark, which I would make, which is, that no horse should be fed higher than usual, when forced to any accidental violent exertion. He never ought to be forced to any, which he has not been, in some degree, prepared for; and his ability to make it, should be looked for, from the previous preparation, not from any unusual means of supporting his strength. Oats appear to be the corn best suited to a horse's stomach; but he wants something better than ours for full work. There is to an experienced eye, a particular lightness and hollowness between the hip joint and the stifle joint, in worked horses that get nothing better than oats, which is not to be seen in those that get Indian corn. As I observed in my last communication, there is a great difference, generally, in the constitution of the round-chested, and the deep and narrow horse. The first has a much more comfortable one to deal with; the other is often stronger, faster and better winded; but varies infinitely from day to day; feels the seasons more; is not so good a feeder; nor ought he to be; for his stomach is weaker and more readily oppressed.

4. As to how he should be worked. It is a common practice in Massachusetts to water horses just before they leave their stable. This is ridiculous: but a worse practice is to water them during their stage; which last is universal. They unquestionably may become accustomed to it, as to any thing else; but it injures many of them. If driven on again immediately, and thrown into new perspiration, it may possibly prevent the water from injuring them; but I entirely question the fact of its lessening the fatiguing effects of their work. I know that it is hard to tire a pedestrian that will drink but little; and that if he is to walk all day, every tumbler of water, drunk when hot, takes two or three miles from a pedestrian's day's work. It is also a common practice to drive horses through a stream of water when they are hot, to refresh them. The immediate effect, unquestionably, is to refresh them; but they soon feel an increased stiffness from it. It is the practice of some people to tie them up after they come in, in the strongest draught of air which can be found, (a damp brick yard where the sun never shines is still better), and wash their legs with cold water. This is going for the whole. The universal manner in which coach horses are driven in Massachusetts is reprehensible. They are started off at a pace much faster than they are expected to hold, and continually galloped for short distances, when the pace at which they are expected to perform their stage does not exceed six or seven miles in the hour. I do not believe that occasional galloping relieves the horses in slow coaches, where the hills do not render it necessary. I believe they should always be driven as nearly as possible at the same pace; and it certainly has a much more coachmanlike appearance.

No horse is worth breeding now, that will not be able to trot over a fair road his ten miles in the hour, with ease to himself; and to do this he

must have much and good blood. At some future opportunity I will make a few remarks upon the question of foot lameness. I should be very happy if any one else would give the result of his experience upon it, as there is a vast deal of such information afloat, which the public never gets the good of. I would ask any coach proprietor, most of whom have much experience of this kind forced upon them, if he has observed more horses to be lame in the near foot than the off one. It is my firm belief that there are, and there is a plausible reason for such an opinion I have subjoined the pedigree of the two most distinguished stallions of the Northern States. I would here remark upon the corrupt use of the word stud. A stud means in English a collection of horses. Stud-horse may do well enough; but when the language contains an old established term such as stallion, which perfectly expresses the idea of a horse kept for the purpose of continuing his species, there is no necessity for our manufacturing a new one.

Eclipse, a light chesnut horse, foaled in 1814; bred in Long Island; got by Duroc; dam by Messenger out of the English Pot8o's mare.—Duroc, was a Virginian horse, by English Diomed; dam a celebrated Virginian mare, but I do not know the pedigrees of the horses whose names are contained in her pedigree. Messenger was an English horse of the first blood; and proved in the States a most successful stallion. The Pot8o's mare's dam was by Gimcrack; but I do not know the rest of her pedigree. Pot8o's and Gimcrack are amongst the most celebrated names of English horses.

Henry, a dark chesnut horse, foaled in 1819; bred on the borders of Virginia and North Carolina; got by Sir Archie; dam by English Diomed; his grandam's pedigree is Virginian for several generations, but I know nothing of the horses contained in it but their names. Sir Archie is supposed to have been got by Diomed himself; his dam an English mare, bred by Lord Egremont, got by Rockingham out of a Trentham mare. It is impossible for any English pedigree to be higher than Sir Archie's; and he has consequently proved the most successful stallion ever bred in the States.

FOR THE NEW ENGLAND FARMER.

DESTROYING BUGS IN PLUM TREES.

Take of tobacco juice one gallon, this may be had of the tobacconists, or you may make it by putting some tobacco in warm water, (not boiling, as that will take off a great part of the oil.) Oil of tar, one quart—train oil one quart—soft soap one and a half pounds, and a quarter of a pound of soot. Beat the oils together first, and then the soap and soot, till well united, then pour them all into the tobacco juice, stiring them gently together. When the liquid is cold, it is fit for use. It should be applied with a common paint brush, in the latter end of March or the first of April.

Previous to applying the mixture, I should recommend pruning; and when the trees are very much affected with the abovementioned disease: heading down at a, b, c, d, e, or f, according to the size of the trees; if any of the ulcers should remain after pruning or heading down, they must be entirely removed from the tree and then apply the composition.

In the month of March, 1825, the plum trees of the late Hon. C. Gore, of Waltham, were affected, with this disease, and which I treated in the above manner. They were so much affected, that I was obliged to head down two of them during the summer of 1826. These trees have since made very luxuriant wood, and free from any of those bunches they have heretofore been subject to. In the summer and autumn of 1827, I had the pleasure of picking as good a crop of fruit (in quantity) from these trees as I have ever seen; and they promise as well for fruit this spring as last.

R. TOOHEY, *Gardener.*

Waltham, March 1828.

[From the Domestic Encyclopedia.]

MYRICA—*Candle berry Myrtle.*

This is a genus of plants comprehending the following native species:

1. *M. Cerifera.* This grows upon boggy lands in the southern States, rising with many strong shrubby stalks to the height of six or eight feet—the leaves are stiff and spear-shaped, of a yellowish lucid green on their upper surface, but paler underneath; of a grateful odour when bruised.—The catkins come out on different plants from the berries, and are about an inch long, and erect.—The female flowers come out on the sides of the branches in long bunches, and are succeeded by small roundish berries covered with a mealy substance, and afford a green wax by boiling.

2. *M. Cerifera humilis,* dwarf candle berry myrtle; a variety of the former; bark gray, leaves shorter and broader, and more serrated.

3. *M. Gale,* bog gale; also grows in swamps, to the height of two or three feet; leaves lance-shaped, smooth, and a little sawed towards the points. The berries are dry, compressed at the apex, and three lobed. This species grows in N. Jersey, but abounds in the eastern States, and in Nova Scotia, according to Mr. Bartram.

The wax is obtained in S Carolina and Georgia, by boiling the berries of the *M. cerifera* in water, and skimming it. Mixed with tallow, it forms excellent candles; a soap may be also made from it. The following receipt for the purpose, by Judge Bee, is inserted in a little pamphlet, published in the year 1788, by the Agricultural Society of Charleston, S. C. To three bushels and a half of common wood ashes, was added half a bushel of unslacked lime; these, being well mixed, were put into a sixty gallon cask, which was filled with water. In forty-eight hours, the ley was strong enough to bear an egg; it was then drawn off, and from six to eight gallons of it put into a copper kettle, capable of containing about twenty-five gallons; four pounds of myrtle wax were added, and the kettle kept boiling over a constant steady fire, from nine o'clock in the morning, till three in the afternoon. For the first three or four hours, a supply of strong ley was added, from time to time, until the liquor appeared like soft soap; then weaker ley was poured in occasionally, and the whole frequently well stirred. After six hours boiling, two quarts of common coarse salt were thrown into the kettle, which was left one hour more to simmer over a slow fire. The liquor was then put into two large tubs to cool, where it continued twenty-four hours; and then the soap was taken out, wiped clean, and put to dry. The next day it was weighed, and the produce was forty pounds, and two ounces, of solid soap. The loss of weight by drying is not mentioned; but Mr. Bee was informed by one who made the trial, that at the end of six weeks, it was very trifling.

From Dr. Bostock's experiments on myrtle wax, it appears, that when boiled with liquid caustic potash, the fluid becomes tubid; but, after some time, the greatest part of the wax rises to the surface, nearly without color, in a floculent form. A small quantity of it only remains dissolved in the potash, and this may be precipitated from it by an acid. That part of the wax which rises to the surface, is converted into a saponaceous matter; it has lost its inflammability and fusibility, and forms an opaque solution with water. From this solution, it is precipitated by an acid in the form of white flakes, which, when collected resemble very nearly the wax before its union with the potash. In the Medical Repository, of New York, it is stated, that Dr. Joseph Browne, of that city, had discovered a cheap and easy process for bleaching myrtle wax, but it has not yet been published.—No doubt, however, the coloring matter may be destroyed by the process for bleaching common bees-wax; or by the vapor of alkalis, which, according to Chaptal, destroys the green color of all vegetable matter.

MACHINE TO BREAK FLAX.

November 25th, 1827.

JOHN H. POWEL,

Corresponding Secretary of the Pennsylvania Agricultural Society.

Well aware, from experience, of the difficulty attendant on the process of preparing flax in the usual way, I was much gratified to find, that, at length, a machine has been invented that appears to obviate all the difficulty. On a recent visit to New York, I stopped at Elizabethtown, New Jersey, where I saw a machine propelled by a small steam engine, at work preparing the raw flax without any rotting or previous process. A French gentleman of the name of Frederick Roumage, engaged the farmers last spring, in that neighborhood to raise flax, for which he promised to pay $15 per ton, as gathered from the field, after having the seed beat out of it. In consequence of this encouragement, he has now the produce of about 400 acres. So well satisfied is he with the machine, that he does not intend either to show or to patent it. All you see is the rough flax put on an endless canvass cloth—enter one side, and in a short time emerge on the other, with the woody fibre as completely separated from it, as is usually done by the best process of breaking, after the flax has been rotted. The fibre in this state has a yellow coloring matter in it, that in a few days may be so completely washed away, that it becomes as white as paper, and almost as soft as silk, a sample of which I enclose with his printed directions to the farmers for the cultivation of the plant. Should these machines be multiplied to a sufficient extent, there is every reason to hope that flax may come into as general use as cotton is now, as $15 per ton would make it a productive crop.

REUBEN HAINES.

Mr. Powel, Chairman of the Committee on Agriculture and Manufactures. Read Feb. 13, 1828.

An Act for the promotion of Agriculture and encouragement of Manufactures.

Whereas, the Agricultural interests of this Commonwealth have never been protected by Legislative aid—and whereas, the farmers as well as all our citizens, are made dependant upon foreign supplies for the rough materials, necessary for the manufacture of various articles, now made objects

of indirect bounty by the fostering care of the General Government. And whereas hemp and flax constitute important items of home consumption, and might become the basis of valuable manufactures for foreign trade, giving stimulus to agriculture, affording employment for the capital and labor of our own citizens, thus advancing internal improvement, augmenting the wealth and enlarging the enjoyment of all. Therefore,

Sec. 1 *Be it enacted by the Senate and House of Representatives of the Commonwealth of Pennsylvania, in General Assembly, met, and is hereby enacted by the authority of the same*, That the sum of ten thousand dollars is hereby appropriated, to be drawn by the warrant of the governor, in favor of the person, who, on or before the first day of March, A. D. 1835, shall, before commissioners to be appointed for the purpose by him, exhibit and try the most perfect machine or machinery, for dressing and reducing flax or hemp without dew or water rotting, to the state fitted for manufacturing, and who shall satisfy them by such trials as they shall deem proper, that the said machine or machines are fitted to effect the objects aforesaid, and that the expense of constructing, erecting, keeping in repair, and working said machines, shall not be too great for the purposes contemplated by this act, and who shall secure to the citizens of this Commonwealth the right of employing said machine or machines free of any charge whatever.

Sec. 2. *And be it further enacted by the authority aforesaid*, That immediately after the passage of this act, the governor shall appoint three commissioners whose duty it shall be to publish the same, and to give notice of the place where such machine or machines are to be exhibited, and a majority of them, shall examine and try the same, and if, in their opinion, any machine or machines so exhibited, after ample trials in the preparation of at least five tons of flax, neither dew nor water rotted, shall appear to them fitted to effect the objects of this act, they shall certify the facts, together with the name of the inventor or proprietor thereof, accompanied by a conveyance in due form from the said inventor or proprietor, authorizing the citizens of this Commonwealth to erect, use, and employ all such machine or machines and process or processes, necessary for the accomplishment of the intentions of this act, free of all charge whatever; and on the receipt of such certificate and conveyance, the governor shall draw his warrant on the State Treasurer, in favor of such inventor or proprietor for the aforesaid sum of ten thousand dollars.

EXPERIMENTS ON SEA COAL AS A MANURE.

BY THOMAS EWELL.

In the proposals I have issued, for the publication of a new work on chemistry, to be adapted for the use of the public in general, it is stated, that I would relate some experiments, instituted to throw light on the art of enriching impoverished lands. The result of several of these has so far exceeded my sanguine expectations, that I hasten to publish them; hoping to turn the attention of farmers to a subject by which their interests may be incalculably promoted.

From a train of reasonings, I was led to believe, that the common sea, pit, or mineral coal, which is so abundant in the United States, when finely pulverized, might prove a useful manure. To ascertain the truth of this, I made the following experiment.

In three small pots I put equal quantities of a yellow clay, which had lately been removed from several feet below the surface of the earth. To the first pot, a table spoonful of finely powdered pit coal was added; to the second, the same quantity of powdered charcoal [blacksmith's coal] obtained from the common oak; and the third was left without any addition. The same number of sound grains of corn were planted in each; the same quantity of water was daily added to each; and they were exposed in similar situations to the actions of light. The rapidity of the growth of the corn in the pot with sea-coal, exceeded any thing of the kind I ever witnessed.—Many days did not elapse before this corn was four inches high, while at this time, that with the common charcoal was not two inches high, and that with the clay alone, had only sprouted.

After this experiment was made, I procured several small pots, and in each put the same quantity of clay. To the first, I added a drachm of sea-coal—to the second, a drachm of horse manure—to the third, the same quantity of plaster of Paris; and to the fourth, the same quantity of common ashes. The fifth was left without any addition. To each of these the same number of sound grains of wheat and corn were added. The precautions taken in the first experiment were strictly adhered to in this instance. In a few days my great expectations from the coal pit were somewhat lessened, by perceiving that the wheat in the horse manure was an inch high before that of the other pots appeared; however, it was but a short time; for the wheat in the pot with the sea-coal came up, grew to an equal height in a few days, and in a fortnight, although the weather was cold, exceeded it by two inches. The corn in the pot with coal, maintained a still greater superiority—it appeared more healthy, and was more than twice as large as the largest in the other pots.—Several of my acquaintances were astonished to see this great difference in vegetation, produced in so short a time.

Pit coal must be cheaper than any article used as a manure, since it is found in so many parts of this country. The above experiments unquestionably show, that when powdered, its power, in quickening the vegetation of corn and wheat, is much greater than any manure with which we are acquainted. Our knowledge of the effects of chemical bodies of growing vegetables, is but in its infancy. Probably the discoveries which have been made are not as generally known as they should be. It may be owing to this cause—for example, that an ounce of sulphuric acid is not added to every cart load of manure; which has long since been found, in England, to render it doubly valuable.

I congratulate my fellow citizens on their prospect of renovating their large tracts of impoverished lands. By speedily using the coal in their inexhaustible mines, I hope the fertility of all their farms will soon be restored; and, that the laboring poor, among my hospitable countrymen, in future, may not suffer so much as to be dependent for bread.

Asparagus, from the garden of Benjamin Austin, Esq. of Newton, was sold by Mr. Towner, in Faneuil Market, Boston, on Saturday the 8th inst. at $1.25 per bunch.

From the United States Gazette.

BAG WORMS, &c.

Allow me through the medium of your paper, to call the attention of our citizens thus early in the season, before the leaves put forth and obscure from view, a foe which ought to be immediately removed, with the limb from which they swing, and to which they are so firmly attached, as to materially impede the flow of the sap; they are now in a torpid state, but will, with the return of vegetation, issue forth and destroy the leaves, and neutralize the growth of the trees so desirably situated on our *footways* for affording shade. The Lindens I believe are those most beset with this kind of worm. I would also suggest a careful examination of the body of the tree by opening the boxes and cutting off all the small limbs and suckers to the height of at least 7 feet from the pavement, as they inflict a serious injury if suffered to remain, by preventing the top of the tree from attaining to such a size as to afford a shade, the object for which they have been planted. Several cases of this kind are within my knowledge. Further, those who have not tried the experiment, are not perhaps aware of the impetus afforded to the growth of young trees, by irrigation, a bucket full of water poured on the roots once in 24 hours, or say 3 or 4 times a week, has a most wonderful effect, care should be taken to apply it after sun down and during the warm dry weather. In putting boxes round trees be careful that the last section be attached with screws (instead of nails) and those to be well greased, that they may be withdrawn with facility when it may be necessary to open the boxes to cut off suckers and limbs which so materially exhaust and impoverish the growth of trees.

Cement for Boilers.—It is stated by a correspondent in the London Mechanics' Magazine, that a cement of lime, (made from oyster shells,) and worked into a paste with the white of an egg, and used upon a cracked boiler ten years ago, which has been in constant use ever since, is now as firm as when first put on. It effectually stops the escape of gas through any aperture, when no other cement could be made to rest. The lime must be fresh and unslacked, and the cement applied as soon as mixed, otherwise it becomes solid. It will resist the united action of fire and water; and even the concentrated acids are stated to have little or no effect on it.—*Pen. Gaz.*

Silk.—One farmer in Connecticut, estimates, that when his mulberry trees, 500 in number, shall have come to maturity, that the females of his family will annually make 300 lbs. of Silk.—They made 50 lbs. last year, by about 100,000 worms, without feeling any loss of labour. Silk will be extensively produced in the United States, especially in the South.—*Amer. Farmer.*

Sun Flower.—In Portugal, they eat the young shoots of this plant, "seasoned with oil and salt; bread is made of the seeds, and also a sort of groats, that a useful & edible oil may be expressed from them, and that they are good for fattening poultry. The leaves of the plant form an excellent forage, especially for cows and sheep.—The stems will do for props for twining or climbing plants; afterwards they will make good fuel, and their ashes afford potash. In some parts of America they roast the seeds, and use them as coffee."—*Gardener's Magazine.*

SCIENTIFIC AGRICULTURE.

An Address delivered before the Hampshire, Franklin, and Hampden Agricultural Society; at Northampton, Oct. 24, 1827. By EDWARD HITCHCOCK, Professor of Chemistry and Natural History in Amherst College.

[*Continued from page* 267.]

Concerning the state of agriculture in Great Britain, previous to the fifteenth century, we know but little. We may conclude, however, that when men begin to write books on any subject, an interest in it is excited in the community; and as early as 1534, Anthony Fitzherbert produced a philosophical and ingenious treatise upon agriculture. But in the succeeding hundred years, nothing appeared on the subject, worthy of notice.—Indeed, though rural economy, sometimes waxing and sometimes waning, was upon the whole slowly progressing, yet no remarkable epoch in its history occurred till near the close of the seventeenth century. In the early ages of Modern Europe, the Feudal system exerted a most unpropitious influence upon agriculture. So military was the spirit of that system, such a servile dependence did it produce on the one hand, and such a haughty aristocracy on the other, that both science and art were withered by its touch: and tho' the system itself has long since been nominally extinct, yet its influence remained for centuries.

But a still more powerful obstruction to the progress of agriculture, was an almost entire ignorance of the scientific principles on which it is founded. Till near the close of the last century, the very sciences from which those principles are derived, can hardly be said to have had an existence. Previous to that period, therefore, treatises upon agriculture were merely a collection of common place maxims, partly true, and partly false, mixed with most extravagant hypotheses and wild and hurtful superstitions. And it is only justice to say, that the Agricultural Chemistry of Sir Humphrey Davy, contains more new and valuable principles to guide the agriculturist in making improvements in husbandry, than all which the experience and science of preceding centuries had developed. And it is to be imputed mainly to the application of these principles, by intelligent men, that agriculture, within the last half century, in Europe, and particularly in Great Britain, has made such rapid progress.

I know, indeed, that there is a prejudice existing in some minds, against the application of scientific principles as guides in agricultural experiments. It is thought that they serve rather to bewilder, than direct. But if the agriculturist be not guided by scientific principles, what shall he follow? True, his own experience alone may do much to assist him; and it has accomplished wonders in times past. But will not a correct knowledge of the composition of soils, of the food of plants, and of the mode in which that food is converted into nourishment, will not this knowledge prove an important auxiliary to experience? The experience of one man teaches him it is important he should observe the position of the moon, or whether the day of the week be lucky, or unlucky, when he sows and when he reaps. But science tells him, that these, and a hundred other similar observances, are not only useless, but often defeat his experiments. In every other art we regard the most scientific artisan, as most likely, other things being equal, to make improvements. Why should it be different—it is not different—in agriculture? In short, physical science is nothing but the result of the most accurate and enlightened experience.

If I mistake not, it is one important object of agricultural societies to give a right direction to the efforts of the experimenter, by furnishing him with correct scientific principles. Permit me, therefore, gentlemen, to spend a few moments in the exhibition of those principles that lie at the foundation of agriculture; and in their application to practical husbandry. In doing this, I shall avoid as much as possible the use of technical phraseology.

There are three sciences, Chemistry, Botany, and Geology, with which the theory of agriculture is most intimately connected. Chemistry teaches us what is the composition of plants, of the soil in which they grow, and of the atmosphere that surrounds them; and of consequence, shows us what is their proper food, and the best manner of applying it. Botany dissects the vegetable kingdom, and discloses those curious vessels by which the food of plants is taken up and converted into the numerous distinct principles and parts which they contain. Geology instructs us in the general nature of the soils in which vegetables flourish, and enables us to predict what varieties of soil will be most favourable to particular plants.

The first point that should engage the attention of the enlightened agriculturist, is to ascertain the nature and situation of those minute vessels by which plants absorb water from the soil and the atmosphere, and by which these principles are modified and circulated to every part of the vegetable, and are converted into the plant itself. So minute are these vessels, that even microscopic observation has not been able to detect all their intricacies. But their general structure and arrangement have been ascertained. And it is found that they bear a most striking analogy to those vessels of animals by which nutriment is conveyed, in ceaseless circulation, to every part of the system. In every plant we find one set of small vessels, running from the roots to the extremities, through which the sap ascends, while in its progress it is undergoing those changes that will fit it for becoming a part of the vegetable.—These vessels resemble the arteries in the animal system. When the sap is thus conveyed to the leaves and other extremities of the plant, it there comes in contact with the atmosphere, gives off its redundancies, and absorbs water, and perhaps other principles, essential to the health of the plant. The leaves of plants, therefore, perform nearly the same functions as the lungs of animals. A second set of vessels, exterior to the first and mostly confined to the bark, now conveys the food of the plant, thus prepared, to every part that needs nourishment; even to the very roots from which it proceeded. These vessels correspond to the veins. Other vessels are found in plants, corresponding, probably, to those similarly situated in the animal system; yet too complicated for explanation on this occasion. Suffice it to mention, that in the vegetable, as well as animal economy, we find the principle of life—itself inscrutable—modifying and controlling every operation and keeping the wonderful machinery in ceaseless play.

So much for the botany, or rather anatomy, of the vegetable kingdom. We next enquire what are the simple substances that enter into the composition of plants; for until the agriculturist knows this, how shall he ascertain what materials are best adapted to their nourishment? And Chemistry stands ready to answer the enquiry.—Out of the fifty simple substances or elements, known to exist, we find vegetables almost entirely composed of three, viz. charcoal and two gases. A few others are occasionally present, and in some cases seem essential to the constitution of the plant; such as silex, lime, iron, manganese, &c. It is by variously combining these few elements that the numerous proximate principles of vegetables, such as sugar, gum, starch, and the like, are produced; and also the unnumbered forms and properties of the stalk, the bark, the wood, the leaves, the roots, the flowers, and the fruit. A beautiful example of the simplicity of nature!

The next point on which chemistry affords light to the agriculturist, is the composition of the soil and atmosphere in which plants are placed. That they derive their nourishment from the first, if not the second of these sources, is certain. It is necessary, therefore, that in these, should be found all those simple substances that are essential to the constitution of vegetables; and the whole subject of manures consists of little else than an account of the modes in which these principles are supplied. The analysis of the soil will show which, if any, is deficient; and thus point to the best mode of supplying those that are wanting.

In regard to those changes that the sap of plants undergoes before it is converted into the vegetable itself, and its various peculiar principles, upon these changes, although entirely chemical, chemistry sheds but a feeble light. We know that every plant must be a perfect laboratory; for we see the sap, which is nothing more than water, holding a few things in solution, entering the vessels of the vegetable, and having passed through them, we find a most wonderful conversion of this sap into pith, wood, bark, leaves, flowers, fruit, and numerous peculiar and compound products; such as gum, sugar, acid, and the like. Here is proof that the most complicated and delicate chemical processes are continually going on in all living plants; processes that infinitely exceed the skill of the most accomplished chemist; and yet, they are hid, from even microscopic observation, by the minuteness of the vessels and agents concerned. We know only that a certain degree of heat and moisture are requisite, and sometimes light also, to carry forward the operation. In these wonderful transformations, however, there is surely one thing the chemist can learn; and that is, a lesson of humility. While he is able, by putting in requisition all the resources of his art, to produce scarcely one of the simplest vegetable principles, twenty or thirty of these are annually formed in every plant.

By the science of geology we are made acquainted with the nature of the rocks that constitute the great mass of our globe. Now it is a well established fact, that soils are nothing more than rocks worn down or decomposed, and mixed with animal and vegetable matter. Hence, in most cases, the nature of a soil is determined by the nature of the rock beneath it. For instance, the soil along the Connecticut is in many places, of a reddish hue; because that is the colour of the rock beneath it. Not unfrequently, however, the materials that are worn away from one rock, are transported a considerable distance, and mingled

with those from other rocks; and thus a soil is formed extremely compound in its characters.

From this view of the subject it appears that we may expect to find as many different soils as there are different rocks; and even more. All rocks, however, may be arranged into a few classes, and the soils resulting from the rocks of a class, will bear a general resemblance. The oldest and most enduring rocks, such as granite, constitute what is called the primary class; and the soils proceeding from their decomposition, may receive a similar designation. Nearly the whole of New England, except the valley of the Connecticut, is made up of primary rocks; and this same class of rocks extends in a southwesterly direction, gradually decreasing in width, through N. York, Pennsylvania, Virginia, North and South Carolina, and Georgia. All the towns in the old county of Hampshire, not situated in the valley of the Connecticut, are based on rocks of this class; accordingly we find in them all, a general resemblance of soil. The second class of rocks is called secondary; being newer, and generally less hard and enduring. The valley in which we are situated, extending from New Haven to the south line of Vermont, is of this description Two of the most important members of this class are here abundant: viz. the old red sandstone—whose very name describes it,—and the peculiar rock, generally called *trap rock*, that constitutes the precipitous ridges of Holyoke and Tom. Secondary rocks are of immense extent west of the Hudson and North West of the Alleghanies, extending even to the Rocky Mountains.

The third class of rocks, or rather of soils, is called the tertiary; because they lie above the secondary, and were therefore subsequently formed. This class consists of regular layers, or beds, of sand, clay, and gravel. The extensive sandy plains, on both sides of the Connecticut, principally south of this village, are a good example of this class. Wherever the sand is worn away to a considerable depth, the clay lying underneath is made visible. All that extensive level country south of New York, along the sea coast, widening as you advance, and embracing a large part of the southern States, consists chiefly of the tertiary class of soils.

The fourth and last class of rocks, or soils, is the alluvial. This consists of all varieties of soil, mingled and spread over low grounds by the agency of water. This is the richest and most productive of all soils; and our own Connecticut and its tributaries, particularly the Deerfield, the Westfield, and the Farmington, exhibit many interesting tracts of this description along their margins. They are scattered, too, all over our country; and the world does not furnish a nobler example than is seen along the Mississippi.

(To be continued)

From Gleanings in Husbandry.

HOT BEDS.

These are in general use in the northern parts of Europe, without which they could not enjoy so many of the products of warmer climates as they now do, nor could they have tables furnished with the several products of the garden, during the winter and spring months.

Made with tanner's bark. This is preferable to that made with dung for all tender exotic plants or fruits which require an even degree of warmth to be continued for several months. The manner of making them is as follows: Dig a trench three feet deep if the ground be dry; if wet, not above six inches, and raised in proportion, so as to admit of the tan being laid three feet thick. The length must be proportioned to the frames intended to cover it. The trench should be bricked up round the sides to the height of three feet, and filled with tan, such as the tanners have lately drawn out of their vats. It should first be laid in a heap for a week or ten days, that the moisture may drain out of it, which if detained in, will prevent its fermentation; then put it in the trench and beat it down gently with the spade without treading it, then put on the frame with the glasses, and in a fortnight it will begin to heat, at which time the pots of plants may be put into it.

When made with horse manure it must be fresh from the stable, and both the long and short forked up in a heap for a week or fortnight, turning it over once or twice in that time, when it will be fit to use. Make the bed the size of the frame, and cover it with rich earth, from six to ten inches deep. When the bed is too hot, it may be cooled by making holes in the sides with a stake, which must be closed when the beds are of a proper temperature; if too cold, line the sides with fresh manure. Cucumbers thrive when the heat of the mould is at 56 of the thermometer.

Besides tanner's bark and horse manure, hot beds are made with oak leaves, straw steeped in pond-water two or three days, coal ashes, grass; and also grains of malt after brewing thrown together in a heap and well watered, to make a ferment and heat.

Mushroom beds are made like the ridges of a house, composed of alternate layers of horse manure and earth, covered with litter; in the surface of these beds, when they have acquired a sufficient degree of heat, the seeds are planted.

[From Hints for American Husbandmen.]

On Rape—its cultivation and produce in Seed—Its value as Green Food for Neat Cattle and Sheep.

By John Hare Powel, Esq.

Powelton, Philadelphia country, 1827.

Dear Sir,—In accordance with your request, I have prepared a notice on the cultivation, uses, and value of cole or rape.

I am not aware that rape had been cultivated extensively in any part of the United States, until 1824, when Mr. Miller and Mr. Phillips of this county, obtained crops so extraordinary in product and value, as to induce them to recommend it to the notice of their neighbours, by the only sort of evidence, which operative farmers will receive.

I have no knowledge of its cultivation, except from my observations abroad. It is highly valued in many parts of Europe, as well for its product in seeds, as for the large quantity of green food which it affords throughout the greater part of the year.

It may be sown either broadcast, or as turnips, in drills—or, in beds, and be transplanted as other varieties of the Brassica or cabbage genus.—The usual and most successful mode, is to sow from two to three quarts of seeds broadcast in June or July, when intended for green food, but in August or September, when destined to produce seeds in the next year.

The process of transplanting is too expensive in this country—the necessary hand hoeing, unless the land has been well prepared by previous cleansing crops, would make rape, in the broadcast system, much more troublesome, than if cultivated in rows, admitting the introduction of a horse-hoe. In favourable seasons I should not hesitate, where land is cheap and labour is dear, to allow it, when intended for green food, to take its chance, without the aid of either hand or horse-hoeing.

It produces in ordinary seasons on rich alluvial, or other deep friable soils, from 40 to seventy bushels of seeds, determined in quantity, very much, by the accuracy of tillage and the condition and nature of the land. Great care and precision are necessary in harvesting the seeds in June or July, of the year succeeding that in which they are sown. When the pods assume a brownish cast, and some of the seeds become black, the crop is reaped with sickles—laid regularly in handsful or *grips* in rows, where it continues until the straw becomes somewhat white—the seeds of the colour of which we find them in the shops. If they be allowed to become too dry, they fall out on the slightest motion—when carried too green, they are liable to be heated. At the proper time they must be thrashed in the field upon old sails or cloths, to which the crop should be carried upon sledges prepared with cloths, or by similar means. The seeds must be carefully spread in small quantities in granaries or on barn floors, and be occasionally moved.

Sheep and neat cattle are extravagantly fond of it—but of all plants, perhaps it is the most likely to cause them to be *blown*.

There is much difference of opinion as to its nutritive properties in the green state. I believe, that it quite equals the common cabbage, and very far exceeds turnips of all kinds in the quantity of nutrition it contains—in the value of the oil for various manufacturing purposes, and the excellence of the cake, after it has been expressed, for cattle food and the manure of drill crops, no question can be entertained.

It is not a certain crop—as it is exposed to all the enemies which attack turnips and cabbages—and is liable to be injured at the season of blossoming by mildew and sometimes by frost.

The Season.—The extraordinary mildness of the present season, is the common topic of conversation. Our gardens and shrubberies have assumed the appearance of spring. The prevalent range of the thermometer has been from 58 to 68, occasionally it reached 70: Green peas, asparagus, tomatoes, with other spring vegetables, have been in our market the whole of the past month. A friend informs us that he saw growing in a gentleman's garden in the city, many *Tobacco* plants, thrifty and in full bloom, which had sprung up since November, from roots of old plants; also Green Corn, fully fit for the table, grown from last year's seed—*Southern Agriculturist, for February*, 1828.

Among the peculiarities of the season, says the Macon Telegraph, of the 31st Dec. may be mentioned the appearance of a load of *water-melons* in our market on Christmas day! They were brought, we understand, from Twiggs county, and sold at a good price. In the garden of Dr. Bird, of this town, *Strawberry vines* have been for some time in blossom.—*ibid.*

Every Family to make their own Sweet Oil.—It is reported a person is going to take out a patent for making a small hand mill, for every person to make their own sweet oil. This may easily be done, by grinding or beating the seeds of white poppies into a paste, then boil it in water, and skim off the oil as it rises; one bushel of seed weighs 50 pounds, and will produce two gallons of oil.—Of the sweet olive oil sold, half of it is oil of poppies. The poppies will grow in any garden; it is the large head white poppy, sold by apothecaries. Large fields are sown with poppies in France and Flanders, for the purpose of expressing oil from their seed, for food. When the seed is taken out, the poppy head is boiled to an extract (see New Dispensatory), which is sold at half a dollar per ounce, and is, in some respects, to be preferred to opium, which now sells very high.—Large profits may be acquired by the cultivation of poppies. Some acres of it are now sown near Cambridge.

[I have used during the summer of 1819 nothing but the oil of the bene seed, procured from South Carolina and Georgia. This oil may be obtained in quantities so large, as to be employed profitably in making soap. For salads, I aver from my own experience, that the bene oil furnished to me by Dr. Mease of Philadelphia, is fully equal to olive oil; and may certainly be afforded at less than a dollar for a gallon. I say the same also of the poppy oil made at the former Moravian settlement at Harmony near Pittsburgh. I have tried a bottle of it, and find it no way inferior to olive oil for any purpose. Half the salad oil used in Paris at this moment, is poppy oil.—T. C.]—*Domestic Encyclopedia.*

NEW ENGLAND FARMER.

BOSTON, FRIDAY, MARCH 21, 1828.

HOW TO RAISE MELONS.

The following method of raising early melons is given in a "Treatise on Gardening," by J. Armstrong, of Dutchess county, N. Y. Select a spot well defended against the north wind, and open to the sun throughout the day. If such is not to be found in your garden, create a temporary and artificial shelter producing the same effect. At the end of March, form holes two feet in diameter, and distant from each other seven feet and a half. Fill these with horse dung and litter, or a mixture of mould, dung, and sand. At the end of twenty days, cover the holes, which have been thus filled, with hand glasses. When the heat rises to 36 of Reaumer, [113 Fahrenheit] sow the seeds four inches apart; and when the plants have acquired two or three leaves, pinch off the end of the branch or runner. This will produce lateral branches which must again be pinched off, so soon as they respectively attain the length of ten inches.—When the plant has out-grown the glass, the latter becomes useless, and may be removed—but should the weather be wet or chilly, substitute coverings of clean straw for that of glasses, until the young plant becomes strong enough to bear the open air. Two or three melons only, are left to each vine, and under each of these is placed a slate, without which the upper and under sides will not ripen together."

In another passage of the same work, the writer gives the following method of superseding the necessity of pinching off the ends of the branches or runners of melon vines, namely: "If the branches be vigorous and long, stretch them carefully over a level surface, and bury every fourth or fifth joint. This is best done by means of a wooden crotchet. The object of pinching or shortening the stem, are thus completely fulfilled, without any of the risk attending that operation, and with advantages peculiar to this method, as whenever the plant is buried, new roots are formed for the better nutrition of the stem and the fruit."

Virginia Pumpkin.— A pumpkin of unusual size, grew on the farm of John Reynolds, Esq. a few miles from Clarksburgh Va last season. It weighed 320 pounds, and measured round the middle 9 feet. All that grew on the same vine weighed 840 lbs.

Welland Canal.—The last Report of the Board of Directors announce the rapid progress of this great public work. It appears that the whole line from the Niagara and Welland rivers will be finished by October next, when the communication between Lakes Erie and Ontario, around the Falls of Niagara, will be completed. The importance of this undertaking will be seen, when it is stated that the canal is of sufficient magnitude to be navigated by vessels of 125 tons burthen, and that produce will soon be sent by the ordinary lake craft, from all the upper lakes to Prescot, 139 miles from Montreal, and to Oswego, 186 miles from Albany. The lockage, or fall from Prescot to tide water, on the St. Lawrence, is only 196 ft. and a canal of only 30 or 40 miles in length is required to connect the Lakes with the Ocean; which, if on the same scale as the Welland, would render the Lake Navigation, to all intents and purposes, a Sea Coast of greater extent than the whole Atlantic Coast of North America. It appears that 50,000*l* is required to complete the canal, and that Mr. Merritt, the Agent of the Company, is on his way to England with an application to the British Government for a loan to this amount; which, there can be no doubt will be obtained.—*N. Y. Albion.*

Tooth Powder.—It may be gratifying to our fair friends as well as those who wish to "stand high in their good graces" on the score of cleanliness, to publish the following receipt for making a cheap and incomparably excellent dentifrice, which not only makes the teeth *white*, but also *gives strength to the gums* and an *agreeable sweetness to the breath*.—It is as follows:—Take half an ounce of Gum Myrrh, one ounce of Chalk, and one ounce of Charcoal. The ingredients must be finely pulverized and sifted through a fine seive, when it is fit for immediate use.—*Am. Advocate.*

Singular Expedition across the Atlantic.—As a proof of the great celerity with which news is circulated at the present day, we may instance the following:—The American President's Speech, delivered at Washington, left New York in the packet ship *Silas Richards*, on the 11th December, arrived in Liverpool on Monday the 31st, was despatched, by express, to London at three o'cl'k. where it reached at three o'clock on Tuesday; was printed and published by five o'clock the same evening, in a second edition of the "Sun" Evening Paper, occupying nearly *five columns*, closely printed, and left London that night by all the mails at eight o'clock, arrived again in Liverpool on Wednesday at seven, copies of which were next day forwarded to New York, which it would probably reach in about thirty days, thus affording president Adams an opportunity of perusing his own speech in the Sun paper, after having sailed across the Atlantic and back again, a distance of 7000 miles, in about forty-eight days!—*Liverpool Courier.*

RAIL ROADS.

We find in the last New York *Journal of Commerce*, the following remarks on a subject in which, we hope our fellow-citizens are deeply interested:

RAIL ROAD TO THE WEST.

"The plan of a rail road from the city of New-York to the waters of Lake Erie, which has been suggested to the public, appears to me worthy of attentive consideration. It is true that the Clinton Canal (I know that I shall be understood, and I wish the name might always be given) has realized the most sanguine expectations of those who planned it. But it is equally true, that it is closed at least four months in the year; and the legislature might as well pass a law that it should not rain, as the one which was lately proposed, declaring that the canal should be closed only from December to March. When it rains, we must even do as they do in Spain—let it rain; and when it freezes, we must let it freeze. Without attempting to resist the ordinances of nature, we must prudently accommodate ourselves to them, and making the best use we can of the canal in the warm season, we *must* contrive some other mode of transportation for the cold. I say we *must*; for with all the wonderful advantages of our local situation and acquired facilities, the neighboring states and cities are on the alert to take them away from us. Massachusetts has lost none of her wealth or enterprize. She will soon construct a rail road from Boston to Albany, which will make the transportation of goods much cheaper between those two places, than by the present circuitous route, through New-York city. If it be made only as cheap, it will at once prevent this city from being any longer the entrepot of the trade between Boston and the west, of which 100,000 bbls. of flour annually form one item. Still more, it will unquestionably enable the capitalists of Boston to compete with our merchants for the whole trade of the west. For they will then meet us on equal terms at Albany with foreign goods imported into Boston, and transported on the rail road, and for further transportation the canal is as free to them as to us."

Nothing is more delightful than an evening party in a private German circle. You assemble for this occasion immediately after tea, which is regularly taken at six o'clock. Some refreshments, such as pine-apples, grapes, &c. are handed round. The whist, quadrille, or *ombre* tables are arranged, and the company sit down to play. During the play, a band performs tunes of Mozart's, Weber's, and Rozini's operas; and if there are daughters in the family, whom their friends are coming to see, a dance is arranged before you are aware.—There is in every house not only the music master, but at least two or three servants who are excellent performers. Their rooms not being carpeted, but *parquetted* and polished with wax, are at any time ready for this occasion. It is in these evening parties that the amiable and fascinating character of the high classes of the Austrian empire shines out in all its charms.—*Austria as it is.*

Cure for sprains or bruises.—Take two ounces of cast-steel soap, half pint alcohol or spirits of wine, mix them together, then add half pint beef gall; put it into a bottle and stop it tight. The older it is the better Bathe the parts affected with it and you will find immediate relief.

THAMES TUNNEL.

This prodigious undertaking, notwithstanding the serious casualties which have interrupted its progress, is still to be prosecuted with vigour.—Since the irruption of Jan. 12, which was less considerable than the former breach, the cavity has been filled, and the water principally re-drawn from the tunnel. About 700 feet remain to be excavated—rather more than half the whole distance across the river. The company's funds are reduced to £21,000; and contributions are solicited from the public in further aid of this grand sub marine turnpike. The younger Mr. Brunel, one of the superintendants, narrowly escaped the fate of the six workmen drowned by the last sudden incursion.—*Eve. Bulletin.*

INDIAN CURE FOR THE EAR ACHE.

Take a piece of the lean of mutton, about the size of a large walnut; put it into the fire and burn it for some time, till it becomes almost reduced into a cinder; then put it into a piece of clean rag, and squeeze it until some moisture is expressed, which must be dropped into the ear as hot as the patient can bear it.

An apricot tree in the rear of Pine street, New York, has already shed part of its blossoms, and the fruit has begun to form.

Post Office.—We understand there were upwards of 8,000 letters assorted and mailed at our Post Office yesterday—an instance of despatch seldom equalled. During the two last days, upwards of 11,000 were mailed.—*N. Y. Statesman*

Large Cow.—A cow four years old, of extraordinary size, was slaughtered in Hallowell, Me. a few weeks since. She weighed 900½ pounds, and had 71 pounds of tallow. She was raised by Charles Vaughan, Esq and was one of a breed imported by him in 1792.

☞ An article from an esteemed friend in Cambridge, on the Cultivation and Forcing of Sea Kail, came too late for this paper.——An article on the Propagation of Salt Water Fish in fresh water, and the progress of the experiments made in Scotland, will soon appear.

40,000.

For sale, Forty Thousand engrafted APPLE TREES, from two to four years from the graft—consisting of forty-three kinds of the most approved and superior Fruits; including early autumn and winter Apples. Also, other Fruit and Ornamental Trees. Orders may be sent to this place via Post office, directed to FRANCIS WINSHIP.

Brighton, March 21st, 1828.

Garden Seeds.

The subscriber has for sale a very large assortment of fresh and genuine Garden Seeds, from the New England Farmer Seed Establishment, Boston.

Likewise, a few pounds Lucerne Seed.

Newburyport, March 21. E. STEDMAN.

Milk Carriage.

For sale, a new Milk Carriage—inquire of Walter Frost, No 18 Common street, Boston. March 21

Gunpowder, &c.

Du Pont's Gun Powder, a. 25 to 50 cts per pound—Shot—Balls—Flints and Percussion Caps.

Also, Alum—Refined Salt Petre—Blue Vitriol, &c. constantly for sale at the *Dupont Powder Store*, No. 65 Broad street—By E. COPELAND, Jr.

☞ No Du Pont Powder is warranted genuine, unless marked "*E. Copeland, jr. Boston.*" Sold as above.

tf March 14

Russian Flax Seed.

For sale at the Seed Establishment, connected with the office of the New England Farmer, No. 52 North Market Street, Boston—a few bushels genuine RUSSIAN FLAX SEED imported direct from Riga, by Charles Thorndike, Esq. of this City. This is the sort of Flax that was introduced a few years since, by Col. Perkins, from Russia, and which is now extensively cultivated in Bristol county in this State—and is found far superior to the common Flax.

The following is an extract from Col. Perkins' letter, to the corresponding Secretary of the Massachusetts Agricultural Society, accompanying a cask of the seed.

"When in Ireland last summer, I conversed with some of the venders of Flax Seed, from whom I learnt that the growers of flax preferred the seed from Riga, to that of any other country, after that the seed from Holland, and last of all the seed from the United States; of this, the seed from the State of New York had the preference. Upon inquiry, I found the Dutch seed was preferred, from being more clear of tares than ours, and the inspection was more attended to in the State of New York, than in Massachusetts. The whole importation into Ireland, was 54,666 casks, of which 51,354 came from the United States—10,882 from Holland, and 2000 from Riga. The Riga seed commands in ordinary seasons, 20 to 30s. sterling more than the Dutch seed, and the latter 10 to 15s. more than ours. An experiment had been made of sowing in the autumn, in place of the spring as had been usual. On the 6th of July I saw flax at Belfast, (which had been sown in October) four feet and an inch in length. This, I understood, was from Riga seed."

Early Potatos.

A few barrels of superior Early Manly Potatos, have been received. This is the same sort as those sold at this place last year, which gave universal satisfaction, as to uncommon earliness, and good quality.

Also, seed of the Cuba Tobacco, Yellow Tobacco, Teazel, Lentils, Spring Wheat, Spring Rye, Barley, Rape, Broom Corn, Spring Vetches, Castor Oil Bean, Corn, (various sorts)—Weld, Yellow Locust, White Mulberry, Millet, Burnet, Orchard Grass, Rye Grass, Tall Meadow Oats Grass, White and Red Clover, Mangel Wurtzel, &c.

☞ Just received from Europe, 1000 pounds of fresh Lucerne Seed.

Fruit and Ornamental Trees.

The KENRICK NURSERIES in Newton, near Brighton, are the most extensive in New England. Gentlemen in want of Trees, are invited to call—examine for themselves—and, make their own selections. The Apple and Peach Trees are extraordinary for size, variety, and thriftiness.

Written orders addressed to JOHN or WM. KENRICK, and sent to the Newton Post office, or left with Joseph Bridge, agent, in Court street, where Catalogues may be had gratis—will be carefully attended to. Trees will be suitably packed for shipping or land conveyance, and delivered in Boston when desired. Gentlemen living at a distance, however, should have agents in the city to receive and pay for them. Mar. 14

Wanted

A MAN to take charge of a valuable Dairy and Farm, within 12 miles of Boston. To one who can produce undoubted recommendations, liberal terms will be offered. Apply at the office of the N. E. Farmer. March 7

Turkey Rhubarb.

For sale at the Seed Establishment, No. 52 North Market St. a few Roots of Rheum Palmatum, or True Turkey Rhubarb—being the medicinal sort. Raised by John Prince, Esq. of Roxbury. Price, $1 per root. March 14

Greenwich Garden.

Carmine and Varick-streets, not five minutes walk from St. Thomas Church, Broadway, along Houston street.

D. KENNEY, Proprietor of this Establishment, grateful for past favors, and the liberal encouragement he has experienced for a number of years, begs leave to inform his friends and the public, that he has received his subannual importation of Bulbous Flower roots—Garden Seeds—Fruit Trees, &c. of every description; all of which are in excellent preservation, and will be sold on the most reasonable terms. The importations are from the first firms in England, France, and Holland, and are warranted to be good and genuine, and no doubt will give general satisfaction, to the Agriculturist, Horticulturist, and Florist. A choice collection of Green house Plants—also hardy Herbaceous Plants many of which are very rare and scarce. Also, a choice collection of Rose Bushes, many of which, originally raised from seed by him; are new, and not in any other collection, for which a premium has been awarded by the New York Horticultural Society. Other Shrubs and Trees, in great abundance. The Hyacinths, Narcissus, Crocus, &c. are now in bloom, will continue in succession the greatest part of the year; and will be well worthy a visit to the Garden and Green house, by any lady or gentleman in or near the city.

☞ Bouquets furnished. Grape Vines, Trees, and Shrubs pruned or trained, at the shortest notice. Asparagus Plants of the first quality. Catalogues may be had at the Garden gratis. Orders from any part of the Union will be strictly attended to. Gentlemen supplied with experienced Gardeners. Likewise, situations got for Gardeners of industrious, sober habits, and that perfectly understand their business, none other need apply.

New York, March 14.

Rose Bushes and Grape Vines.

For sale at the House of SAMUEL DOWNER, in Dorchester, 80 hundred leaf Rose bushes—90 do. Province, or Cabbage 10 do. four seasons—300 do. Damask—30 do. Burgundy—5 do. Austrian—25 do. Marble—10 do. Tuscany—100 do. French—6 very large pots monthly Roses, sixteen years old, and in prime health—7 varieties Double Dahlias—Single, do.—8 Lagerstoœmia Indica, or Crape Myrtle, two of which are 20 years old—200 Grape Vines, (White Sweet water)—Snow ball Bushes—White Lilies—Red and White Lilacs.

ROSE WATER.

20 Demijohns Double and Single distilled Rose Water, made entirely from Damask Roses. The above Rose Water is constantly kept for sale at Mr. C. Wade's Porter Cellar, No. 12 Merchant's Row, by Demijohn or less quantity.

6t March 14

Isabella Grape.

Vines of the ISABELLA GRAPE may be had, on application to the Subscriber, in Dorchester, or at his office, 7 1 2 Congress Street. ZEB. COOK, Jr.

Wanted as above, a first rate Gardener, who can produce satisfactory recommendations. 3t March 21

Barley.

For sale at the Seed Establishment connected with the New England Farmer office, No. 52 North Market street, Boston, a few bushels of *Seed Barley*, raised in Roxbury, Ms.

FARM WANTED.

Any person having a large and good farm, that is capable, and does make, not less than one hundred tons of good hay, with a suitable proportion of tillage and pasture land, and a good supply of wood and orcharding, with good buildings, and a pleasant and healthy situation, as to good neighborhood, (and not exceeding 60 or 70 miles from Boston, would be preferred,) will please direct a letter, giving a very particular description thereof, (postage paid) and the *lowest price* and terms of payment, to A. Z. Care of Mr Russell, publisher of the New England Farmer.

PRICES OF COUNTRY PRODUCE.

		FROM	TO
APPLES, best,	barrel.	2 00	2 50
ASHES, pot, first sort,	ton.	107 50	110 00
Pearl, first sort,	"	112 00	115 00
BEANS, white,	bushel.	1 75	2 00
BEEF, mess, new,	barrel.	9 75	10 00
Cargo, No. 1, new,	"	8 50	9 00
Cargo, No. 2, new,	"		7 50
BUTTER, inspected No. 1, new,	pound.	14	16
CHEESE, new milk,	"	7	10
Skimmed milk,	"	3	4
FLOUR, Baltimore, Howard-street,	barrel.	5 75	5 87
Genesee,	"	5 75	6 00
Rye, best,	"	3 00	3 25
GRAIN, Corn,	bushel.	58	60
Rye,	"	68	70
Barley,	"	60	67
Oats,	"	40	42
HOG'S LARD, first sort, new,	pound.		10
LIME,	cask.	70	1 00
PLAISTER PARIS, retails at	ton.	2 75	37
PORK, new, clear,	barrel.	17 00	18 00
Navy, mess, new,	"	12 50	13 00
Cargo, No. 1, new,	"	12 50	13 00
SEEDS, Herd's Grass,	bushel.	1 50	1 75
Orchard Grass,	"		4 00
Fowl Meadow,	"		4 00
Rye Grass,	"		4 00
Tall Meadow Oats Grass,	"		5 00
Red Top	"		1 00
Lucerne,	pound.		50
White Honeysuckle Clover,	"		50
Red Clover,	"	12	13
French Sugar Beet,	"		1 50
Mangel Wurtzel,	"		1 50
WOOL, Merino, full blood, washed,	pound.	30	55
Merino, full blood, unwashed,	"	20	25
Merino, three fourths washed,	"		34
Merino, half & quarter washed	"		30
Native, washed,	"	22	27
Pulled, Lamb's, first sort,	"	40	45
Pulled, Lamb's, second sort,	"	30	35
Pulled, for spinning, first sort,	"	30	35

PROVISION MARKET.

BEEF, best pieces,	pound.	8	12
PORK, fresh, best pieces,	"	7	8
whole hogs,	"	6	7
VEAL,	"	6	8
MUTTON,	"	4	7
POULTRY,	"	10	12
BUTTER, keg and tub,	"	12	14
Lump, best,	"		20
EGGS,	dozen.	10	12
MEAL, Rye, retail,	bushel		70
Indian, retail,	"		80
POTATOS,	"	40	50
CIDER, [according to quality,]	barrel.	2 00	2 50

MISCELLANIES.

ON PLANTING A TULIP ROOT.

Here lies a bulb, the child of earth,
Buried alive beneath the clod,
Ere long to spring, by second birth,
A new and nobler work of God.

'Tis said that microscopic power
Might thro' its swaddling folds descry
The infant image of the flower,
Too exquisite to meet the eye.

This, vernal suns and rains will swell,
Till from its dark abode it peep,
Like Venus rising from her shell,
Amidst the spring-tide of the deep.

Two shapely leaves will first unfold,
Then, on a smooth elastic stem,
The verdant bud shall turn to gold,
And open in a diadem.

Not one of Flora's brilliant race
A form more perfect can display;
Art could not feign more simple grace,
Nor nature take a hue away.

Yet, rich as morn of many a hue,
When flushing clouds thro' darkness strike,
The tulip's petals shine in dew,
All beautiful—but none alike.

Kings, on their bridal, might unrobe,
To lay their glories at its foot;
And queens, their sceptre, crown, and globe,
Exchange for blossom, stalk, and root.

Here could I stand and moralize;
Lady, I leave that part to thee,
Be thy next birth in Paradise,
Thy life to come, eternity.

Acquaintance table.—The following clever statistics we find in an old Magazine of many years' antiquity, but the numerical statements apply as well now as then:

Two	Glances Bows How d'ye do's Conversations	make one	Bow. How d'ye do. Conversation. Acquaintance.

Receipt for a rout.— Take all the ladies and gentlemen you can collect—put them into a room with a slow fire—stew them well—having ready twelve packs of cards—a piano forte—a handful of prints or drawings, and put them in, from time to time. As the mixture thickens, sweeten with *politesse*, and season with wit, if you have any, if not, flattery will do, and is very cheap. When all have stewed well for an hour, add some ices, jellies, cakes, lemonade, and *wines*;—the more of these ingredients you put in, the more substantial will your rout be. Fill your room quite full and let the *scum* run off!

A grammatical pupil.—A country school master in the neighborhood of Cucdney, the other day, after giving one of his pupils a sound drubbing for speaking bad grammar, sent him to the other end of the room to inform another boy that he wished to speak to him, and at the same time promised to repeat the dose if he spoke to him ungrammatically. The boy being quite satisfied with what he had got, determined to be exact, and thus addressed his fellow pupil: "There is a *common substantive* of the *masculine gender*, *singular number*, *nominative case*, and in an *angry mood*, that sits perched upon the eminence at the other end of the room wishes to *articulate* a few *sentences* to you in the *present tense*."

A landlord threatened a poor Irishman, the other day, to put a distress in his house, if he did not pay his rent. "Put a distress in, is it you mane?" said Pat;—"Och, by St. Anthony's sow, but you'd better take distress *out*—there's too much in already, by the mither that bore me!"

Compliment to Boston.—The Southern Review, in an elegant article on classical learning, thus alludes to the literature of the North. "These improvements, with so many more, are beginning to spring up and blossom, with great freshness and luxuriance, about the favored city of Boston, our western Florence, in which industry has been the willing tributary of letters and the arts, and which is, throughout all its institutions, its character, and its pursuits, one great monument of what commerce has done to civilize and adorn life."

The celebrated engineer, J. M. Brumel, superintendant of the Tunnel under the Thames, at London, is a native of the United States, and was the inventor of the block machinery at the dock-yards, Portsmouth.

Large Fruit.—The editor of the Detroit Gazette in speaking of the fertility of that territory says, that during the last month, he has seen several water-melons, each of which weighed upwards of *forty pounds*—and that it is not extraordinary to see a beet which will weigh more than *eighteen pounds*. The following are given as the weight and dimensions of a pear picked in a garden at Detroit. Weight 30 ounces; longitudinal circumference 17½ inches; longitudinal diameter 7½ inches; circumference 14½ inches.

TO MAKE A MARROW PUDDING.

Take a quart of cream and milk, and a quarter of a pound of Naples biscuit, put them on the fire in a stew-pan, and boil them up: take the yolks of eight eggs, the whites of four beat very fine, a little soft sugar, some marrow chopped, a small glass of brandy and sack, a little orange-flower water; mix all well together, and put them on the fire; keep stirring till it is thick, and put it away to get cold; have a dish rimmed with puff paste, put the above in, sprinkle currants that have been well washed in cold water, and rubbed clean in a cloth, marrow cut in slices, and some candied lemon, orange and citron, cut in shreds, and send it to the oven: three quarters of an hour will bake it; send it up hot.

The GINSENG, or *panax quinquefolium*, L. is an exotic plant growing wild in North America.

The dried root of ginseng has a mucilaginous, sweetish taste, similar to that of liquorice, but accompanied with some degree of bitterness, and a slight aromatic warmth, with very little odour.—The Chinese ascribe extraordinary virtues to this plant, and consider it as a sovereign remedy in almost every disease to which they are subject. No proofs, however, of its wonderful efficacy have occurred in Europe.

This well known plant, according to Dr. Mease, is the only native production of the United States, which answers to export in order to procure the luxuries of China. It is not much esteemed in China, unless clarified, except in times of a great scarcity of the plant. The process of clarifying, though hitherto kept a profound secret, consists in the careful application of heat and moisture to the fresh roots, and afterwards dipping them in hot rice water, or a solution of isinglass in water. It is observed that not more than one root in twelve will clarify. This plant grows abundantly near Philadelphia.

Fruit Trees.

WILLIAM PRINCE, the Proprietor of the Linnæan Botanic Garden and Nurseries at Flushing, Long Island, has the pleasure of informing the public, that his Nursery now contains 172 varieties of the Apple—202 do. of the Pears—76 do. of Cherries—53 do. of Plums—25 do. of Apricots—84 do. of Peaches—20 do. of Nectarines—10 do. of Almonds—14 do. of Mulberries—6 do. of Quinces—16 do. of Figs—16 do. of Currants—15 do. of Raspberries—47 do of Gooseberries—20 do. of Strawberries—257 do. of Grapes—600 do. of Ornamental Trees, &c. Above 500 of the above kinds of Fruit are not to be found in any other collection in America. The different varieties cannot be otherwise than genuine, as the greatest attention is paid, and nearly all the kinds are inoculated from bearing trees. The Cherry, Peach, and other Trees, are generally of a large size. Catalogues may be obtained of J. R. Newell, at the Agricultural Warehouse, 52 North Market-street, gratis; and orders left there, or sent by mail, will meet prompt attention.

March 14

JAMES BLOODGOOD & Co's.

Nursery, at Flushing, on Long Island, near New York.

IN behalf of the Proprietors of the above Nursery, the subscriber solicits the orders of Horticulturists who may be desirous of stocking their gardens and fields with Fruit Trees of the finest sorts, and most healthy and vigorous stocks the present reason.

BLOODGOOD & Co. *attend personally to the Inoculating and Engrafting of all their Fruit Trees*—and purchasers may rely with confidence, that the Trees they order will prove genuine. The subscriber, Agent of the above Nursery, will receive orders for any quantity of

FRUIT AND FOREST TREES,
FLOWERING SHRUBS,
AND
PLANTS

The Trees will be delivered in this City, at the risk and expense of the purchaser—the bills may be paid to him.

The reputation of this Nursery is so extensively known, and has been so well sustained, that I take leave to refer those in want of Trees, to any of the Horticulturists in this City and its vicinity; and if ocular demonstration is desired, I invite those who wish to be thus satisfied, to examine the Trees in my garden at Dorchester, procured from this Nursery for three or four years past, some of which are now in bearing, all in a healthy and vigorous state.

☞ Catalogues will be delivered gratis, on application to ZEB. COOK, Jr. Rogers' Buildings—Congress St.

Landreth's Nurseries—Near Philadelphia.

From the patronage already extended this Establishment, by the citizens of Boston and its vicinity, the Proprietors are again induced to advertise to them their Nurseries, as offering peculiar facilities for the acquirements of useful & ornamental vegetable productions. The collection now cultivated by them, consists of an immense variety of Fruit and Hardy Ornamental Trees and Shrubs—Green-house Plants—Bulbous Roots, and Garden Seeds. The assortment of Fruits is not surpassed in real value by any in this country. It embraces most of the celebrated kinds of Europe, with all the esteemed varieties which have originated on this continent. The utmost care has been observed in making the selection, and the whole is now offered as containing none but those most worthy of cultivation. Persons not acquainted with the different varieties by name, and desirous to procure choice kinds, by merely stating the time they wish them to ripen, may confidently refer the rest to the proprietors, without a fear of disappointment.

The Ornamental department is rich in native and exotic Plants—it contains a splendid collection of Green-house Plants, most of which are calculated for adorning in the winter seasons, parlours, sitting-rooms, &c. with an assortment of Hardy Flowering Shrubs, and acquisitions are continually making.

In the portion of ground allotted to Garden Seeds are grown almost every variety of Esculent Vegetables for seeding. The method pursued by the Proprietors in this branch, certainly must obtain for them a preference withs all who will consider the subject in the slightest degree. The preparation of those kinds liable to mix in seeding—in short, the whole process of cultivation, in gathering, &c. all being under their own personal superintendence undoubtedly conspires in an eminent degree, to obviate the errors and impositions, unavoidable in a dependence on foreign importations, or on careless or inexperienced growers at home. Orders received by Parker & Codman, No. 31 Congress-St. Boston, of whom priced catalogues of the whole may be had gratis. Persons ordering, may be assured of having every article well and safely packed and forwarded.

Feb. 15. tf D. & C. LANDRETH.

☞ Published every FRIDAY, at *Three Dollars* per annum, payable at the end of the year; but those who pay within sixty days from the time of subscribing, are entitled to a deduction of *Fifty Cents*.